

heathunter

CLOSE CONTROL AIR CONDITIONERS WITH DISPLACEMENT AIR DELIVERY





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GENERAL FEATURES

The **HEAT HUNTER** air conditioners, with displacement air distribution, are the air conditioning spearhead solution for telephone exchanges, internet hotels applications and electronic appliances high concentration rooms, for the electric consumption optimisation in these specific ambients.

Neither ductworks nor raised floor are necessary for the air distribution.

HEAT HUNTER, in combination with RC Group Free-Cooling chillers, forms the SOLUTION® patented system, for energy saving optimisation in presence of Hi-Tech plants with variable flow.



The typical "honey comb" grille of the HEAT HUNTER series, optimised to grant wide air surface and low crossing speed

VERSIONS :

DX (R407C)

Cooling capacity 7,0 ÷ 46,6 kW

Direct expansion air conditioner, for remote air cooled condenser matching.

DW (R407C)

Cooling capacity 7,5 ÷ 49,4 kW

Direct expansion air conditioner, with built-in water cooled condenser.

CW

Cooling capacity 11,1 ÷ 50,6 kW

Chilled water feeding air conditioner.



Displacement air delivery (DL)

The air-conditioning system with displacement air delivery is based on the principle that the air is distributed at a very low speed, while enabling a cooling effect by convection.

The displacement system creates a cushion of cold air at the floor level, thanks to proprietary COLDLAYER technology, which is available for all the equipment installed in the room, and can reach also the equipment located in critical positions, thanks to patented AIR-RAIL® injectors.

Every electronic equipment will "absorb" the amount of cold required to maintain a correct temperature level inside, through a natural convection effect. The greater the load inside the electronic equipment, the greater this effect.

Therefore, every electronic equipment uses only the amount required to dissipate its own thermal load, which is generated by maximising the result and the energy efficiency of the system.

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AIR-RAIL® System

System patented by RC, consisting of a series of aerodynamic inductors, to optimise the laminar air flow in the actual conditions of installation and positioning.

* MISTRAL® control logic

The real displacement motor is the difference in air temperature between a room's ceiling and floor. To ensure the system operates correctly, this difference must remain constant under all operating conditions.

The MISTRAL® (Modulating control of Indoor STRATification Layer) control logic used by HEAT HUNTER makes it possible to reach this objective.

This is achieved by precisely timed integrated control of the refrigerated supply, i.e. both the air flow rate and the power of the heat exchange unit are varied.

The MISTRAL® control logic, wholly developed at RC GROUP's Research and Development office, is protected by international patent.

MAIN COMPONENTS

- Base and housing in epoxy painted aluminium profile frame and panels in galvanized steel sheet externally coated with PVC film.
- Centrifugal fans directly coupled to electric motor and controlled by inverter.
- Scroll compressor (DX – DW)
- 3-way proportional cooling valve with emergency manual control (CW)
- Electrical box in separate compartment
- Main switch with door lock safety
- MP.COM microprocessor control

MAIN OPTIONAL ACCESSORIES

- Serial port
- Remote air cooled condenser (DX)
- Electric heating system
- Humidification and dehumidification system
- High efficiency filters F5
- Compressor cap for noise reduction (DX – DW)
- Condensate discharge pump
- Plenum on air suction for direct free-cooling system



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TECHNICAL DATA AND NOMINAL PERFORMANCES

HEAT.HUNTER.DX

MODEL		007	009	010	013	015	016	020	023	026	030	037	045
		Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1
Size		HH0	HH0	HH0	HH1	HH1	HH1	HH2	HH2	HH2	HH2	HH3	HH3
Cooling capacity (1)	kW	7,0	8,3	9,8	12,3	14,1	16,8	20,1	22,0	26,5	30,0	37,2	46,6
Air flow	m ³ /h	2200	2200	2200	3300	3300	3300	6600	6600	6600	6600	10000	10000
Compressors	n.	1	1	1	1	1	1	1	1	1	1	1	1
Weight	kg	205	205	205	310	320	320	390	390	425	440	530	540
Sound pressure (4)	dB(A)	53,0	53,0	53,0	55,3	56,7	57,2	58,9	59,4	61,1	64,3	64,6	65,2

HEAT.HUNTER.DW

MODEL		007	009	010	013	015	016	020	023	026	030	037	045
		Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1	Z1
Size		HH0	HH0	HH0	HH1	HH1	HH1	HH2	HH2	HH2	HH2	HH3	HH3
Cooling capacity (1)	kW	7,5	9,1	10,4	13,4	15,8	18,6	21,3	23,9	28,7	33,1	39,6	49,4
Air flow	m ³ /h	2200	2200	2200	3300	3300	3300	6600	6600	6600	6600	10000	10000
Compressors	n.	1	1	1	1	1	1	1	1	1	1	1	1
Weight	kg	215	215	215	320	340	340	405	405	440	455	550	565
Sound pressure (4)	dB(A)	53,0	53,0	53,0	55,3	56,7	57,2	58,9	59,4	61,1	64,3	64,6	65,2

HEAT.HUNTER.CW

MODEL		14	21	25	44	63
Size		HH0	HH1	HH1	HH2	HH3
Cooling capacity (1)	kW	11,1	18,3	25,3	34,8	50,6
Air flow	m ³ /h	2200	3330	5500	6660	10000
Weight	kg	165	270	290	355	435
Sound pressure (4)	dB(A)	50,6	54,1	55,1	57,1	58,6

- (1) Referred to entering air at 24°C with 50% RH and outdoor air temperature at 35°C.
 (2) Referred to entering air at 24°C with 50% RH and water inlet to the condenser 30/36°C.
 (3) Referred to entering air at 24°C with 50% RH and chilled water temperature 7/12,5°C.
 (4) Sound pressure 1m far in free field according to ISO3744 norm.
 POWER SUPPLY: 400.3.50+N

DIMENSIONS (mm)

Size	a	b	c
HH0	785	600	1.980
HH1	1.470	600	1.980
HH2	2.005	600	1.980
HH3	2.540	600	1.980

